APPENDIX A - CLAIM AMENDMENTS

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1. (Currently Amended) A device for assessing ~~the degree of~~ systemic perfusion failure in a patient, the device comprising: a blood-flow sensor adapted to be positioned adjacent a mucosal surface within a patient's body to measure blood flow in adjacent tissue; a PCO2 sensor adapted to be positioned adjacent the mucosal surface to measure PCO2 in the adjacent tissue; an indicating element operably connected to the blood-flow sensor and the PCO2 sensor to indicate the measured blood flow and the measured PCO2; ~~and a sensor-positioning element having an inner portion and an outer portion, said inner portion having a shape generally corresponding to the shape of the area of tissue to be measured and structured to engage and isolate the tissue,~~ wherein given a measured blood flow in the adjacent tissue that is substantially lower than a normal measured blood flow and a PCO2 measurement that is substantially higher than a normal PCO2 measurement the device derives the assessment ~~is indicative~~ of ~~the degree of~~ systemic perfusion failure in ~~of~~ the patient.

2. (Original) The device of claim 1, wherein the mucosal surface is in the gastrointestinal tract.

3. (Original) The device of claim 2, wherein the mucosal surface is in the esophagus.

4. (Original) The device of claim 2, wherein the mucosal surface is in the stomach.

5. (Original) The device of claim 2, wherein the mucosal surface is in the jejunum.

6. (Original) The device of claim 2, wherein the mucosal surface is in the colon.

7. (Original) The device of claim 2, wherein the mucosal surface is in the rectum.

8. (Original) The device of claim 1, wherein the mucosal surface is in the upper respiratory/digestive tract.

9. (Original) The device of claim 8, wherein the mucosal surface is in the nasal passages.

10. (Original) The device of claim 9, wherein the mucosal surface is in the vestibule of the nasal cavity.

11. (Original) The device of claim 9, wherein the mucosal surface is in the nasal cavity.

12. (Original) The device of claim 9, wherein the mucosal surface is in the middle nasal conchae.

13. (Original) The device of claim 9, wherein the mucosal surface is in the inferior nasal conchae.

14. (Original) The device of claim 9, wherein the mucosal surface is in the choana.

15. (Original) The device of claim 9, wherein mucosal surface is in the pharyngeal opening of the auditory tube.

16. (Original) The device of claim 8, wherein the mucosal surface is in the oral cavity.

17. (Original) The device of claim 8, wherein the mucosal surface is in the pharynx.

18. (Original) The device of claim 8, wherein the mucosal surface is in the oropharyngeal passage.

19. (Original) The device of claim 1, wherein the mucosal surface is accessible by a mouth and connects with the gastrointestinal tract.

20. (Original) The device of claim 1, wherein the mucosal surface is accessible by a nose and connects with the upper respiratory/digestive tract.

21. (Original) The device of claim 15, wherein the mucosal surface is a sublingual surface.

22. (Canceled)

23. (Previously presented) The device of claim 1, wherein the holder member is adapted to fit within the oral-nasal cavity of the patient and maintain the blood flow sensor in place adjacent the mucosal surface.

24. (Previously presented) The device of claim 23, wherein the holder member is adapted to fit within the mouth of the patient and hold the blood flow sensor in place adjacent the mucosal surface.

25. (Previously presented) The device of claim 23, wherein the holder member is adapted to position the blood flow sensor adjacent a sublingual mucosal surface.

26. (Previously presented) The device of claim 23, wherein the holder member is constructed to fit between the inside of a lip and gum of the patient.

27. (Previously presented) The device of claim 23, wherein the holder member is adapted to fit within the vestibule of the nasal cavity of the patient and hold the sensor in place adjacent the mucosal surface.

28. (Original) The device of claim 1, wherein the blood-flow sensor is a laser-Doppler blood-flow sensor.

29. (Original) The device of claim 1, wherein the blood-flow sensor is an ultrasound-Doppler blood-flow sensor.

30. (Original) The device of claim 1, further comprising a pH sensor.

31. (Original) The device of claim 1, further including a means for determining the rate of change of blood flow.

32. (Original) The device of claim 31 wherein the determining means comprises a circuit for generating a signal representing rate-of-change of blood flow.

33. (Currently Amended) A device for assessing ~~the degree of~~ systemic perfusion failure in a patient, the device comprising: a blood-flow sensor, adapted to be positioned adjacent a mucosal

surface within a patient's body and measuring blood flow in adjacent tissue; an indicating means operably connected to the sensor means for indicating the measured blood flow, whereby the device derives an indication of ~~degree of~~ systemic perfusion failure ~~of the patient may be deduced~~; and a sensor holder ~~with an inner portion and an outer portion, said inner portion~~ having a shape generally corresponding to the shape of the area under the patient's tongue, said holder forming at least one holder passage extending from a front thereof to a back thereof ~~said outer portion to said inner portion~~, wherein the sensor is located within the holder passage.

34. (Previously presented) The device of claim 33, wherein the sensor holder has an upper surface that is adapted to support the tongue of the patient.

35. (Original) The device of claim 33, wherein the outer portion has a slot for receiving the patient's frenulum, and the holder passage has an inner end lying on one side of said slot.

36. (Original) The device of claim 33, wherein at least a portion of the holder is comprised of an elastomeric material.

37. (Currently Amended) A device for assessing ~~the degree of~~ systemic perfusion failure in a patient, the device comprising: a blood-flow sensor, adapted to be positioned adjacent a mucosal surface within a patient's body to measure blood flow in adjacent tissue; a pH sensor, adapted to be positioned adjacent the mucosal surface to measure pH in the adjacent tissue; an indicating element operably connected to the sensor to indicate the measured blood flow and the measured pH, wherein given a measured blood flow in the adjacent tissue that is substantially lower than a normal measured blood flow and a pH measurement that is substantially lower than a normal pH measurement the device derives ~~is~~ an indication~~ve~~ of ~~the degree of~~ systemic perfusion failure in ~~of~~ the patient~~; and a flexible sensor holder having a holder passage extending within at least a portion of the sensor holder and structured to receive the blood flow sensor, said sensor holder having an inner portion and an outer portion, said inner portion having a shape generally corresponding to the shape of the area of tissue to be measured wherein at least a portion of the blood flow sensor is exposed along a longitudinal axis thereof and engages and isolates the mucosal surface of the tissue to be measured~~.

38. (Canceled)

39-60. (Canceled)

61. (Currently Amended) A device for assessing ~~the degree of~~ systemic perfusion failure in a patient, the device comprising: a blood-flow sensor adapted to be positioned adjacent a mucosal surface within a patient's body to measure blood flow in adjacent tissue; a pH sensor adapted to be positioned adjacent the mucosal surface to measure pH in the adjacent tissue; a PCO2 sensor adapted to be positioned adjacent the mucosal surface to measure PCO2 in the adjacent tissue; an indicating element operably connected to the blood-flow sensor, the pH sensor and the PCO2 sensor to indicate the measured blood flow, the measured pH and the measured PCO2, wherein given a measured blood flow in the adjacent tissue that is substantially lower than a normal measured blood flow, and a pH measurement that is substantially lower than a normal pH measurement, and a PCO2 measurement that is substantially higher than a normal PCO2 measurement, the device derives the assessment ~~is indicative~~ of ~~the degree of~~ systemic perfusion failure in ~~of~~ the patient~~; and a positioning element for positioning the blood-flow sensor adjacent the mucosal surface, the positioning element comprising a flexible sensor holder having a holder passage extending within at least a portion of the sensor holder, the flexible sensor holder having a top surface and a bottom surface, the bottom surface having a shape generally corresponding to the shape of the area of tissue to be measured and adapted to engage and isolate the mucosal surface~~.